



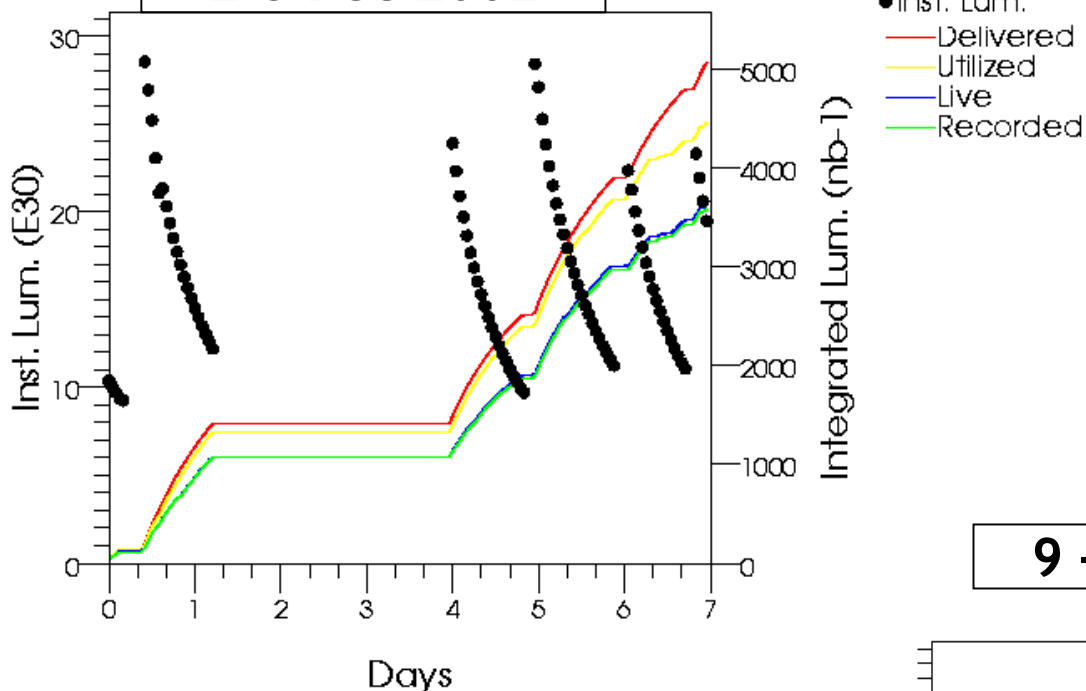
# Data Taking

## 2002 December 13-19

### News from the Tevatron

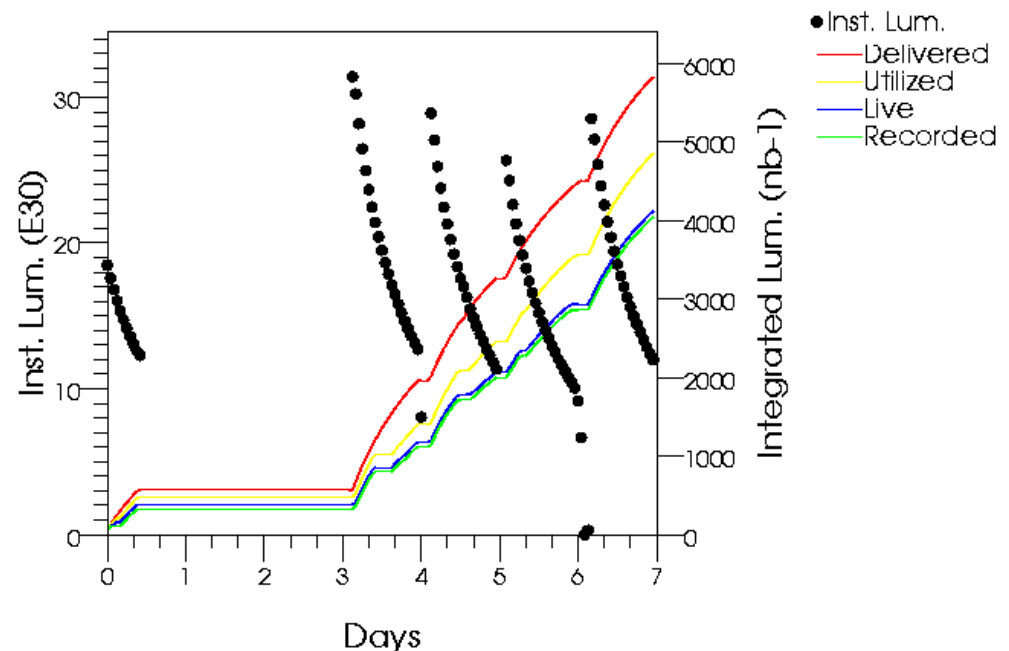
- No scheduled beams studies until after the New Year
  - Likely to occur on Tue/Wed Jan 7 & 8
- No Call-in Zone
  - 12:00 Dec 24<sup>th</sup> - 08:00 Dec 26<sup>th</sup>
  - 18:00 Dec 31<sup>st</sup> - 12:00 Jan 1<sup>st</sup>
    - If an Accelerator problem occurs during these times that does not affect safety of staff or machines then no further action beyond calling "holiday" expert will be done
- Intention is to Stack 'N Store for the next two and a half weeks

**2-8 Dec 2002**



• Stores 2074 & 2076 delivered  $\sim 1.4 \text{ pb}^{-1}$  on Sunday Dec 15<sup>th</sup> w/nearly  $\sim 1.2 \text{ pb}^{-1}$  of recorded luminosity - new record.

**9 -15 Dec 2002**



**Beams  
Studies  
Weeks**



# Beams Studies Weeks

Store	Initial Lumi	Deliv'd Lumi	Termination	Comments
2049	24.8	888	Intentional	Tev dampers off; pbar RF problem affects coalescing in MI
2070	33.2	1479	Intentional	Tev feeddown changes on ramp; pbar ARF1 problems again
2072	31.4	1383	Intentional	ARF1 problem again, but finally understood
2074	27.0	1215	Intentional	First shot with pbar ARF1 fixed
2076	31.2	1567	Intentional	Minor chromaticity decrease in Tev ramp
2078	28.4	> 1200	Intentional	Proton bunch length blow-up at 980 GeV
2087	23.1	~ 900	Intentional	???

- From Ron Moore - BD Run Coordinator at AEM Dec 2<sup>nd</sup>
  - Talk linked from the Operations page
  - Best performance for a Beams Studies week



# Other News

- New Trigger List 9.50 began online Thu Dec 19<sup>th</sup>
  - First recorded run was 169524
- Changed zero bias prescales for non-beam periods
  - L1/L2/L3 ~ 450/80/1 Hz
  - Eric was concerned about the high currents due to the large data flow size of nearly 18 MB/sec
- Beginning a new series of Shifter Tutorials
  - Posted on DØNews & emailed all shifters
  - Experts in this room are strongly encouraged to be a guest speaker
    - Geoff, Fritz, Doug, Eric and Dan have already volunteered
    - Next opening is in late February, but good idea to schedule now
- Revised Run Plan with specific instructions for each detector shifter on when they can leave if there is no beam for durations greater than four hours



# Data Taking Statistics

Day	Date	Normalizable Luminosity (nb <sup>-1</sup> )				Hours			Evts (k)	Eff.
		Del	Util	Live	Rec	Store	Util	Rec		
Fri	13-Dec-02	1300.62	1056.74	886.95	877.42	20.4	16.4	15.3	1777	0.675
Sat	14-Dec-02	1186.13	1087.22	865.07	859.11	21.2	19.7	18.3	2065	0.724
Sun	15-Dec-02	1379.72	1310.80	1188.75	1186.35	23.3	20.2	20.1	2302	0.860
Mon	16-Dec-02	1223.30	1176.44	1040.24	1012.89	20.7	19.8	19.6	2388	0.828
Tue	17-Dec-02	161.83	156.17	143.71	140.98	3.9	3.8	3.8	515	0.871
Wed	18-Dec-02	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0	0.000
Thu	19-Dec-02	851.74	779.77	612.12	600.39	16.2	14.9	13.7	1666	0.705
		6103.3	5567.1	4736.8	4677.1	105.7	94.8	90.8	10713	0.766

- All events & luminosity in this table reflect what DØ measured while in store - but not all is physics
  - There were a few special runs, but I did not have the time to deconstruct that information this week
- One should note that the biggest hit to our efficiency was Downtime not Deadtime this week!



# Sources of Downtime

Dec 13-19, 2002	13-Dec-02	12:39	2.42	Online Cluster Reboot
	13-Dec-02	15:12	0.58	Loaded New Untested Muon PDT Code Mid-Store
	13-Dec-02	20:10	0.30	Install New Muon MDT Code
	14-Dec-02	2:50	0.38	Begin Store SMT HV Problems
	14-Dec-02	8:07	0.72	SMT HDIs in Crate x62
	14-Dec-02	22:43	0.30	EOS - Muon Pixel Threshold Studies
	16-Dec-02	3:07	0.30	L1 CTT Studies
	16-Dec-02	18:15	0.30	Muon Rate Test
	19-Dec-02	11:49	0.30	L3 Supervisor
	19-Dec-02	16:09	0.28	CFT Inputs to L1 Muon
	19-Dec-02	16:57	0.25	L2 MUF Crash

- Online Cluster - Problem/solution occurred during this mtg time last week
- L3 Supervisor - details from Gordon
- Special Runs
  - L1 CTT Trigger Study, Pixel Thresholds, Muon Rate Test
- SMT Problems at beginning of stores
  - Which all went in at 3 am...
- Muon readout code...



# Plans for Upcoming Two Weeks

- global\_CMT-9.50
- No change to peak L1/L2/L3 rates ~ 600/250/50 Hz
  - Muon, etc.
- System coordinators make sure there is full shifter and EXPERT coverage from now until Jan 6<sup>th</sup>
  - As of today, there are some open DAQ Shifts the last week of December
    - I am still trying to fill them with someone other than myself, as I have not taken DAQ Shifts since June AND I will be otherwise occupied as an on-call Expert
  - Dmitri and I will be around during the holiday period
- No meeting next week (Dec 27<sup>th</sup>)